



COMMANDANT INSTRUCTION 4454.1

Subj: VEHICLE INSPECTION AND MAINTENANCE (I/M) PROGRAM

Ref: (a) Inspection/Maintenance Program Requirements 40 CFR 51, Subpart S

(b) Inspection/Maintenance Flexibility Amendments 40 CFR 51, 18 Sept 95, P.48029, Final Rule

1. PURPOSE. The purpose of this Commandant Instruction is to inform Commanding Officers and Officers in Charge of shore units and independently moored vessels of the legally mandated requirements for reducing air emissions from motor vehicles operated in their geographic areas of responsibility.
2. ACTION. Area, maintenance and logistics commands; district commanders; and commanding officers of Headquarters units shall ensure compliance with the provisions of this instruction.
3. DIRECTIVES AFFECTED. None.
4. DISCUSSION.
 - a. The Environmental Protection Agency (EPA) has developed regulatory requirements (references (a) and (b)) for an enhanced Inspection and Maintenance (I/M) Program for vehicle emissions in serious, severe and extreme ozone and carbon monoxide (CO) nonattainment areas that also meet certain population density criteria. The EPA has delegated the authority for the administration and enforcement of this requirement to the states. I/M programs are expected to be implemented by the states throughout ozone nonattainment areas with a 1990

COMDTINST 4454.1

population of 200,000 or more, and throughout carbon monoxide (CO) nonattainment areas with a 1990 population of 200,000 or more. Enclosure (1) is a list of these areas where the Coast Guard operates. States have the option to expand the requirements to include other areas with air quality concerns. Each state can enforce its own requirements against Coast Guard shore units and independently moored vessels.

- b. Commanding Officers and officers in charge of the host units, independent shore commands, or independently moored vessels located in a nonattainment area with a local I/M program have the responsibility to comply with the requirements of that program. Commanding Officers are encouraged to consult with the appropriate civil engineering support staff for assistance in meeting I/M requirements. Enclosure (2) provides some basic steps to follow in meeting these requirements.
- c. Federal property owners may be required to prove compliance with this requirement to state regulatory authorities upon request. Reference (a) requires many road vehicles that operate on federal lands for more than 60 days per year, to comply with state/local I/M programs. This includes privately-owned vehicles (POV), Coast Guard owned/leased vehicles, and other government owned/leased fleet vehicles. Regulators are likely to require documentation that vehicles entering Coast Guard shore units are inspected in accordance with the state or local I/M program.
- d. States are required by reference (a) to provide centralized test facilities in affected areas and will need to know the number of POVs and government fleet vehicles that will participate in their program. Many states are currently advertising contracts for performing I/M testing. Several states have already begun requesting information concerning the number and operational characteristics of vehicles on federal property.
- e. States may charge fees for I/M testing and vehicle registration. Testing and registration of CG owned vehicles will be funded from unit OE accounts. Payment of fees for testing and registration of vehicles leased from the General Services Administration, if necessary, will also be funded from unit OE accounts. Testing and registration of POVs is the responsibility of the owner.

5. PROCEDURES.

- a. Commanding Officers and Officers in Charge of affected shore units and independently moored vessels (except

headquarters units) shall:

- (1) Comply with state I/M requirements, including recordkeeping and reporting;
- (2) Consult with their servicing CEU to develop effective compliance procedures based on individual requirements of each state;
- (3) If a host command, prepare an I/M compliance procedure with which each tenant command shall comply.

b. MLCs/CEUs shall:

- (1) Identify and notify all units in their AOR that may fall under requirements of an I/M program;
- (2) Support and guide all such units in development of I/M compliance procedures as needed. This includes, but is not limited to ensuring consistent interpretations of federal and state requirements in dealing with state regulators. Enclosure (3) provides general guidance for the I/M requirements;
- (3) Obtain updated guidance from the appropriate state regulator to advise units correctly in each state;
- (4) Advise headquarters units in their geographic AOR upon request, on appropriate interpretation of state I/M regulations in order to maintain consistent CG interpretation of state requirements;
- (5) Ensure consistent interpretation of state requirements among various units in their AOR;
- (6) Report implementation issues to Commandant (G-SEC) via the chain of command.

c. Commanding Officers of affected Headquarters units shall:

- (1) Comply with state I/M requirements, including recordkeeping and reporting;
- (2) Consult with the servicing MLC/CEU to ensure consistent CG interpretation of state I/M regulations;
- (3) If a host command, prepare an I/M compliance procedure with which each tenant command shall comply;
- (4) Consult with Commandant (G-SEC), as necessary, to develop appropriate compliance procedures;

COMDTINST 4454.1

- (5) Report implementation issues to Commandant (G-SEC).
- d. Commandant (G-SEC) shall:
 - (1) Issue available information from other federal agencies (and other sources) to assist the implementation of this program;
 - (2) Advise headquarters units, as necessary, on compliance with Federal and state I/M requirements;
 - (3) Monitor implementation issues and revise Coast Guard policy or advance recommended regulatory changes to the EPA, as appropriate.

Encl: (1) Ozone and Carbon Monoxide Non-attainment Areas Where Coast Guard Operates

- (2) Steps to Follow
- (3) Coast Guard Inspection and Maintenance (I/M) Guidance

Malmberg/REESE:drb: x7-1924 07/3/96 <EPCRA>96/I/MCOMDTINST4454

OFFICE OR		G-MCPO											
DIVISION	SEC	SEA	SEN	of	OG	G-PD	G-NP	G-MP	G-OCU	G-LEL	G-SII2	G-SE	G-S
INITIALS OF		SEC-3											
RESPONSIBLE OFFICERS													
INTRA-OFFICE OR		SEC-3b											
DIVISION	INITIALS	SEE											
DATE OUT		PREVIOUS											
ROUTING													

TO: Chief, Systems Directorate

FROM: Chief, Office of Civil Engineering

SUBJ: VEHICLE INSPECTION AND MAINTENANCE (I/M) REQUIREMENTS

1. Request you sign the COMDTINST. This instruction applies to vehicles operated for more than 60 days per year on CG property in areas with poor air quality. This includes contractor vehicles, government owned or leased vehicles, and POVs owned by CG employees, regardless of the state of registration.
2. The I/M program applies to emissions from vehicles operated at certain CG facilities in the first, fifth, eighth, ninth, and eleventh districts. Affected CG units are required to document proof of compliance to the regulator.
3. Minimal Coast Guard costs, except for recordkeeping and reporting, will result from this program. Individuals are required to spend up to \$450.00 to bring their vehicles into compliance with I/M requirements.
4. Please sign the attached Instruction.

V/R,

IMPACT ASSESSMENT

1. PERSONNEL RESOURCES REQUIRED. This notice informs Commanding Officers and Officers in Charge of the EPA requirements for a comprehensive Inspection and Maintenance (I/M) program for vehicles operated in certain ozone and carbon monoxide nonattainment areas. MLCs and CEUs are to contact the state responsibility and inform them of the I/M program requirements. No new personnel resources are necessary for this task.
2. TRAINING REQUIRED. No training will be required to implement this program. The program affects POV owners individually, as well as government owned/leased vehicles, regardless of state of registration. CG units are required to document proof of compliance to the I/M agency.

DISTRICT **OZONE NON ATTAINMENT AREAS WHERE COAST GUARD OPERATES**

FIRST New York City Metropolitan Area and Long Island

All of Massachusetts, Rhode Island,
Connecticut, and Portsmouth, NH area

FIFTH Philadelphia, PA, Wilmington, DE, and Trenton, NJ

Baltimore, MD

Washington, D.C. area-DC-MD-VA

EIGHTH New Orleans, LA (This is a transitional area and the State has implemented a monitoring program that meets federal guidelines)

Houston-Galveston-Brazoria, TX

Beaumont-Port Arthur, TX

NINTH Chicago-Gary-Lake County, IL-IN

Milwaukee-Racine, WI

ELEVENTH Los Angeles-South Coast Basin, CA

South Desert Modified AQMA at Riverside, CA

San Diego, CA

Ventura, CA

Sacramento, CA

CARBON MONOXIDE NONATTAINMENT AREAS WHERE COAST GUARD OPERATES

ELEVENTH Los Angeles-South Coast Basin, CA

Riverside, CA

STEPS TO FOLLOW

1. Consult with your servicing MLC or CEU.
2. Find out individual state or local requirements. Remember, each state can enforce its own requirements, which will vary state-by-state. Be aware these requirements may apply to vehicles registered in another state.
3. Set a goal of full compliance, including recordkeeping and reporting where required.
4. Develop a plan to ensure the goal is attained and maintained.
5. Use the technical requirements in enclosure (3), Part II.A as a template for demonstrating compliance (see Part I.E) to the state or local agency.
6. Be aware that the state I/M program is constantly changing, and that changes in regulations, air quality, population, or unit transportation patterns may change applicability to your unit.

COAST GUARD INSPECTION AND MAINTENANCE (I/M) GUIDANCE

I. Background

In November 1990, Congress amended the Clean Air Act (CAA) in order to further reduce air pollution in the United States. The new amendments created more comprehensive regulatory requirements for air emissions from mobile sources. A three point strategy for achieving reductions in motor vehicle emissions is being pursued by the Environmental Protection Agency (EPA) which includes:

- development and manufacture of cleaner vehicles
- production of cleaner fuels
- implementation of more stringent inspection and maintenance
- (I/M) testing

Newer vehicles produce significantly less air pollution than older vehicles, and because current vehicle fleets and privately-owned vehicles are being driven for longer periods, I/M testing ranks as a highly important strategy to achieve more immediate reductions in ozone and carbon monoxide (CO) to improve air quality. I/M program requirements must be incorporated into the State

Implementation Plans (SIPs) which each affected state was required to submit to EPA for approval. Several states have yet to submit their plans.

A. Purpose of I/M Program

The I/M program was developed to monitor whether vehicle engines and emissions control devices are working properly. Even though newer vehicles are designed to meet stringent standards, lack of maintenance or malfunctioning emissions controls can cause excessive pollution. Older vehicles are more likely to pollute more because of malfunctioning emissions controls. The average passenger vehicle in the United States is seven years old, and EPA estimates that 55% of these vehicles are high emitters of ozone precursors (hydrocarbons) and CO. Because excessive polluting vehicles are not obvious, inspections must be performed to identify those vehicles needing repairs to their emissions controls. Periodic vehicle inspections and required repairs are intended to encourage proper vehicle maintenance and discourage tampering.

B. Areas Covered by the I/M Program

The I/M program requirements must be implemented in certain carbon monoxide and ozone nonattainment areas. Refer to enclosure (1) for a list of Coast Guard areas affected.

The data used to classify an area's air quality status is referred to as the design value and is measured in parts per million (ppm). There are five nonattainment classifications based on design values as shown in the following table:

DESIGN VALUE					
	Marginal	Moderate	Serious	Severe	Extreme
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
Ozone	0.121- 0.138	0.138- 0.160	0.160- 0.180	0.180- 0.280	>0.280
Carbon Monoxide	---	9.1-16.4	=>16.5	---	---

The type of emission testing required, in decreasing order of stringency, (high enhanced, alternate low enhanced, or basic - see descriptions below) depends on EPA's classification of an area's nonattainment design values:

High Enhanced I/M programs are required in the following areas:

Ozone Transport Regions (OTR)	Areas where EPA has reason to believe that the interstate transport of air pollutants from one or more states contributes significantly to a violation of a standard in one or more other states. There is one OTR in the U.S. at present, which includes Washington D.C., and all or parts of the following States: CT, DE, ME, MD, VA, MA, NH, NJ, NY, PA, RI, and VT. For any Metropolitan Statistical Area (MSA) of over 100,000 population located within the OTR, high enhanced I/M is required, regardless of that area's attainment classification.
Ozone nonattainment	Serious, severe, and extreme areas with urbanized populations of 200,000 or more, based on the 1990 census.
Carbon Monoxide	Moderate or serious nonattainment areas with a design value greater than 12.7 ppm and having a 1980 census-defined urbanized area population of 200,000 or more, shall implement high enhanced I/M in the 1990 census-defined urbanized area.

Alternate Low Enhanced I/M programs are required in the following areas:

Ozone	Attainment and marginal or moderate nonattainment area with an urbanized population of 200,000 or more, based on the 1990 census.
Carbon Monoxide	Moderate nonattainment area with an urbanized population of 200,000 or more, based on the 1990 census.

EPA will soon propose a more flexible low enhanced I/M program for affected areas with less than 200,000 population. This standard will not require extensive emission test networks like those discussed in Part II.A.2 below.

Basic I/M programs are required in the following areas:

Ozone	Marginal and moderate nonattainment areas that were part of an approved SIP in 1990.
Carbon Monoxide	Moderate nonattainment areas with a design value of 12.7 ppm or less and having a 1980 census-defined urbanized area population of 200,000 or more.

C. Vehicles Covered by the I/M Program

The I/M requirements apply to government owned/leased fleet vehicles as well as to vehicles operated by employees (civilian, military, and contractor personnel) on a federal installation. These requirements may apply even if the vehicle is registered in another state.

D. Fleet Vehicles

States will not receive credit from EPA for emissions reductions from self-certified fleet I/M testing data. Because of this

restriction, states are not expected to allow self-certification of fleets. Therefore the Coast Guard will not likely be able to "self-certify" its vehicle fleets and will require off-site testing. Presently, EPA generally supports off-site testing, which may present logistics problems for large vehicle fleets. In addition to testing during normal hours, EPA has provided guidance identifying three options for fleet testing:

1. Special Hours - The state would assign special hours and test sites for fleet testing.
2. Compromise - The Coast Guard provides the necessary test facility and the state contractor provides testing. This is probably not a cost effective option for the Coast Guard given the size of our vehicle fleets. A variation on this option would be for Coast Guard to cooperate with other agencies to achieve an aggregate number of vehicles to justify construction of a separate test facility.
3. Mobile Testing - The state would have the state contractor test vehicles at the Coast Guard site with mobile equipment. This is not presently an option for enhanced I/M equipment. States can exempt private fleets from I/M requirements, however, federal fleets cannot be exempted.

E. Demonstrating Proof of Compliance

Coast Guard units may be required to provide documentation of proof of compliance to EPA or the state air quality control agency. The documentation must include a list of vehicles subject to I/M requirements, which must be updated periodically (no less frequently than each inspection cycle). Units may find that the most efficient means of complying with I/M requirements is to incorporate the compliance into unit security measures. The unit can use one of the following methods to establish proof of compliance for each vehicle:

1. Certificate of compliance from the local program.
2. Certificate from any program at least as stringent.
3. Certificate from any program acceptable to the state.
4. Proof of vehicle registration in the I/M area, where I/M is required for vehicle registration.
5. Other methods acceptable to the state I/M administrator.

II. I/M Program

A. Technical Requirements

The I/M technical requirements are outlined in the SIP for each state or local nonattainment area listed in enclosure (1). Because of the diversity of nonattainment areas and state requirements, each SIP will be different; only the general requirements as listed in 40 CFR Part 51 Subpart S are discussed here. States can adopt more stringent test standards for older vehicles, but ultimately EPA must approve the SIP. The high enhanced, alternate low enhanced, and basic I/M test requirements as well as an explanation of key terms are described below.

1. High Enhanced Test

Start Date: January 1, 1995 (The date the State must begin testing)

Testing Frequency: Annually (biannually allowed if State can demonstrate attainment)

Model Year Coverage: Covers 1968 and later vehicles

Vehicles Covered: Light duty cars and light duty trucks, rated up to 8,500 pounds Gross Vehicle Weight Rating (GVWR)

Waiver costs: Minimum \$450 spent for repairs, adjusted for inflation.

Test Type Idle or two speed test, plus visual

2. Alternate Low Enhanced Test

This revision to the standards is for nonattainment areas that are required to implement high enhanced testing (#1 above) but which can obtain adequate emission reductions from other sources without the stringency of enhanced testing (see reductions in waiver costs and test type below).

Start Date: 18 Oct 1995

Testing Frequency: Annually

Model Year

Coverage: 1968 and later

Vehicles

Covered: Light duty cars and trucks, rated up to 8,500 pounds GVWR

Waiver cost: \$75.00 (pre-1981), \$200.00 (1981 and newer)

Test type: Idle, plus visual

3. Basic Test

Start Date: July 1, 1994

Testing

Frequency: Annually (biennially allowed if State can demonstrate attainment)

Model Year

Coverage: Covers 1968 and later vehicles

Vehicles

Covered: Light duty cars and trucks, rated up to 8,500 pounds GVWR

Waiver Cost: \$75.00 (pre-1981), \$200.00 (1981 and newer) Effective NLT 1 Jan 1998

Test Type: Idle

B. Issues to be Aware Of

The EPA regulations leave several key terms and concepts undefined. EPA has provided verbal guidance on their recommended interpretations for several terms discussed below. Issues of concern may include definitions for the following terms or phrases:

Federal Installation - EPA interprets this term to refer to government - owned facilities only. The Coast Guard supports this interpretation. Several states have indicated that they may also consider including leased spaces.

Operating on a Federal Installation - Questions have arisen as to whether or not parking on the installation is included in the term "operating". Vehicles which are driven onto Coast Guard- owned land more than 60 days per year (including to parking lots) shall be considered as operating on that unit.

Enclosure (3) to COMDTINST 4454.1

Employee - I/M requirements apply to employees operating vehicles on Coast Guard property. This includes vehicles operated by military, civilians, vendors and contractors. All must be in compliance with I/M requirements if they operate vehicles on base 60 or more calendar days per year.

C. Alternative Fuel Vehicles

Most of the Coast Guard's vehicle fleet is leased from GSA. Steps toward compliance will be taken by updating government fleets with alternative fuels such as methanol 85, compressed natural gas, or electricity which generally emit lower levels (if any) of ozone and carbon monoxide. The CAA along with the Energy Policy Act and Executive Order 12844 have specific requirements for fleet purchases of alternative fuel vehicles. Retrofitting current gas-powered vehicles to accommodate alternative fuels is also being considered. States may choose to exempt alternatively fueled vehicles from I/M testing.